

REMARKS

Claims 1 – 13 and 16 - 37 are pending. The Applicants' attorney has amended claims 1, 4, 8, 11, 16, 19, and 29 and has added new dependent claims 32 - 37.

The Applicants' attorney thanks Examiner Sniezek for teleconferencing with him on 25 June 2003, and reiterates below the reasons for patentability discussed during the conference.

Rejection of Claims 1-3 and 8-11 Under 35 U.S.C. § 103(a) In View of U.S. Patent 6,204,629 to Rote et al.

As discussed below, the Applicants' attorney respectfully disagrees with this rejection.

Claims 1 - 3

Claim 1 as amended recites a sensor circuit having first and second sensor nodes operable to be respectively coupled to the first and second nodes of a coil such that no element is in series with the coil between the first and second sensor nodes.

For example, referring, e.g., to FIG. 3 of the patent application, the input nodes of the amplifier circuit 82 are coupled to the coil 56 such that no element is in series with the coil between the input nodes. The input nodes of the amplifier circuit 82 are the respective nodes of the resistors R8 and R9 that are not connected to the (-) and (+) inputs, respectively, of the differential amplifier. Neither the sense resistor Rs nor any other element is in series with the coil 56 between these input nodes.

Conversely, referring, e.g., to Rote's FIG. 4, the input nodes of Rote's amplifier 178 are coupled across the series combination of the coil 26 and the sense resistor Rsense.

Contrary to the Examiner's assertion, referring, to Rote's FIG. 4, including the sense resistor Rsense in series with the coil 26 between the input nodes of the amplifier 178 is not an obvious design choice over omitting the sense resistor Rs (or any other element other than the coil) from between the input nodes as recited in claim 1. That is, referring, e.g., to FIG. 3 of the patent application, omitting the sense resistor Rs from between the input nodes of the amplifier circuit 82 provides a significant advantage over

the system 170 of Rote's FIG. 4, an advantage not suggested by Rote. Specifically, in at least some cases, the claimed sensor circuit may generate the speed signal when the current through the coil is not exactly zero. For example, referring, *e.g.*, to FIG. 3 of the patent application, the sample and hold 84 may sample the amplified coil signal (speed signal) from the amplifier circuit 82 when the current through the coil 56 is not exactly zero (*see e.g.*, p. 5, line 5 of the patent application). Because the back voltage across the coil 56 may be relatively small, even a small amount of current flowing through R_s may introduce a significant error into the measurement of the back voltage, and thus into the control of the park/unpark head speed. See U.S. Patent 6,154,340 (Cameron), column 5, lines 16-34. Consequently, omitting the sense resistor R_s (and any other element other than the coil 56) from between the input nodes of the amplifier circuit 82 as claimed provides a significant advantage by eliminating this error.

Claims 8 – 11

Claim 8 as amended is patentable for reasons similar to those discussed above in support of the patentability of claim 1.

Rejection of Claims 4 – 7 and 27 – 28 Under 35 U.S.C. § 103(a) As Being Unpatentable Over Rote In View of U.S. Patent 6,154,340 to Cameron

As discussed below, the Applicants' attorney respectfully disagrees with this rejection.

Claims 4 – 7

Claim 4 as amended recites a drive circuit operable to drive a coil such that a read-write head moves to or from a ramped parking platform at a speed that is approximately five inches per second.

For example, referring, *e.g.*, to FIGS. 1B – 3 and p. 15, line 22 of the patent application, a drive circuit 36 can drive a coil 56 such that a head 16 moves to or from a ramped parking platform 14 at approximately five inches per second.

However, one would not be motivated to combine Rote and Cameron to obtain the subject matter recited in claim 4. Rote does not disclose or suggest moving a head

at any particular velocity, and Cameron states that a Rote-type circuit moves the head too fast (at least 10 inches per second, column 5, line 36) for parking the head on a platform. Consequently, Cameron would not motivate one to use Rote's circuit to move a head at a velocity less than 10 inches per second, and actually teaches away from this.

Claims 27-28

Claim 27 as pending recites coupling a nondithered drive signal to a coil of a motor assembly to park a read-write head on a ramped platform.

For example, referring, e.g., to FIGS. 1B – 3 of the patent application, a nondithering control circuit 32 causes a coil 56 to park a read-write head 16 by moving the head from over a disk 12 onto a platform 14 that is raised with respect to the surface of the disk.

Conversely, one would not be motivated to combine Rote and Cameron to obtain a nondithering control circuit operable to park a head on a raised platform because Cameron actually teaches away from this. Referring, e.g., to FIG. 1 and column 1 lines 25-31, Rote does not disclose or suggest moving the head 32 to or from a raised parking platform. Referring to column 4, line 4 – column 5 line 38, Cameron states that circuits similar to Rote's circuit are unsuitable for parking a head on a platform because they cannot move the head slowly enough (column 5, lines 35 – 38). Referring to FIGS. 8a-8c and column 5, line 39 – column 7, line 49, Cameron goes on to state that one way that a circuit can move the head slowly enough is to drive the head with a sinusoid that dithers the head back and forth, thus effectively eliminating friction between the head and the platform. Consequently, given Cameron's negative statements about using Rote's nondithering circuit for parking a head on a platform, one would not be motivated to use Rote's circuit for such a task. In fact, one would be motivated to search for a circuit other than Rote's circuit.

Rejection of Claims 12 – 13 and 16 – 18 Under 35 U.S.C. § 103(a) As Being Unpatentable Over Rote In View of Cameron

As discussed below, the Applicants' attorney respectfully disagrees with this rejection.

Claims 12 – 13 and 17 – 18

Claim 12 as pending is patentable for reasons similar to those discussed above in support of the patentability of claim 27.

Claim 16

In addition to being patentable by virtue of its dependency on claim 12, claim 16 as pending is also patentable for reasons similar to those discussed above in support of the patentability of claim 4.

Rejection of Claims 19 – 26 and 29 Under 35 U.S.C. § 103(a) As Being Unpatentable Over Rote In View of Cameron

As discussed below, the Applicants' attorney respectfully disagrees with this rejection.

Claims 19 - 26

Claim 19 as amended is patentable for reasons similar to those discussed above in support of the patentability of claim 1.

Claim 29

Claim 29 as amended is patentable by virtue of its dependency from claim 27.

CONCLUSION

In light of the foregoing, claims 2-3, 5-7, 9-10, 12-13, 17-18, 20-28 and 30-31 as previously pending, claims 1, 4, 8, 11, 16, 19, and 29 as amended, and new claims 32-37 are in condition for allowance, and that action is requested.

In the event additional fees are due as a result of this amendment, please charge such payment to Deposit Account No. 07-1897.

If the Examiner believes that a phone interview would be helpful, he is respectfully requested to contact the Applicants' attorney, Bryan Santarelli, at (425) 455-5575.

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Respectfully submitted,

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